I CLAIM:

1. A use of an effective amount of a regeneration initiating cell for the manufacture of a medicament for treating or preventing pancreatic damage.

2. A use of an effective amount of a regeneration initiating cell for the manufacture of a medicament for stimulating the regeneration or repair of damaged islet cells.

3. A use of an effective amount of a regeneration initiating cell for the manufacture of a medicament for stimulating the regeneration or repair of a damaged insulin secreting cell.

4. A use of an effective amount of a regeneration initiating cell for the manufacture of a medicament for treating hyperglycemia.

5. A use according to any one of claims 1 to 4 wherein said regeneration initiating cell is derived from bone marrow, peripheral blood, umbilical cord blood or placenta.

6. A use according to any one of claims 1 to 5 wherein the regeneration initiating cell has the surface marker c-kit.

7. A use according to any one of claims 1 to 5 wherein the regeneration initiating cell has the surface markers c-kit and at least one marker selected from the group consisting of KDR, AC133, CD34, Tie-1/2, Tek-1/2, VEGF-receptor families, CD31, and angiopoietin receptors.

8. A use according to any one of claims 1 to 7 wherein the regeneration initiating cell is human.

9. A use according to any one of claims 1 to 8 for the treatment of

diabetes.

10. A use according to claim 9 wherein said diabetes is insulin dependent Type II diabetes.

11. A use according to any one of claims 1 to 10 wherein said medicament is administered to a human.

12. A pharmaceutical composition for treating or preventing pancreatic damage comprising an effective amount of a regeneration initiating cell in admixture with a pharmaceutically acceptable diluent, excipient or carrier.

13. A pharmaceutical composition for stimulating the regeneration or repair of damaged islet cells comprising an effective amount of a regeneration initiating cell in admixture with a pharmaceutically acceptable diluent, excipient or carrier.

14. A pharmaceutical composition for inducing the regeneration or repair of a damaged insulin secreting cell comprising an effective amount of a regeneration initiating cell in admixture with a pharmaceutically acceptable diluent, excipient or carrier.

15. A pharmaceutical composition for treating hyperglycemia comprising an effective amount of a regeneration initiating cell in admixture with a pharmaceutically acceptable diluent, excipient or carrier.

16. A pharmaceutical composition according to any one of claims 12 to 15 wherein said regeneration initiating cell is derived from bone marrow, peripheral blood, umbilical cord blood or placenta.

17. A pharmaceutical composition according to any one of claims 12 to 16 wherein the regeneration initiating cell has the surface marker c-kit.

18. A pharmaceutical composition according to any one of claims 12 to 16 wherein the regeneration initiating cell has the surface markers c-kit and at least one marker selected from the group consisting of KDR, AC133, CD34, Tie-1/2, Tek-1/2, VEGF-receptor families, CD31, and angiopoietin receptors.

19. A pharmaceutical composition according to any one of claims 12 to 18 wherein the regeneration initiating cell is human.

20. A pharmaceutical composition according to any one of claims 12 to 19 for the treatment of diabetes.

21. A pharmaceutical composition according to claim 20 wherein said diabetes is insulin dependent Type II diabetes.

22. A pharmaceutical composition according to any one of claims 12 to 21 wherein said pharmaceutical composition is administered to a human.

23. A method of detecting the presence of a regeneration initiation cell in a sample comprising:

(a) isolating low density mononuclear cells from the sample;

(b) transplanting the low density mononuclear cells into a recipient animal with tissue or organ damage; and

(c) determining whether or not the transplanted cells engraft the damage tissue or organ, wherein engraftment of the damaged tissue or organ indicates the presence of regeneration initiation cells in the sample.

24. A method according to claim 23 wherein the sample is bone marrow, peripheral blood, umbilical cord blood or placenta.

25. A method according to claim 23 or 24 wherein the sample is from a human.

26. A method according to any one of claims 23 to 25, wherein the recipient animal is a mouse.

27. A method according to any one of claims 23 to 26 wherein the recipient animal has diabetes.

28. A method according to any one of claims 23 to 27 wherein tissue or organ is pancreas.